

Title (en)
Gas-carburizing apparatus

Title (de)
Vorrichtung zur Gasaufkohlung

Title (fr)
Appareil e carburation

Publication
EP 0825274 A2 19980225 (EN)

Application
EP 97114454 A 19910702

Priority

- EP 91306003 A 19910702
- JP 17595590 A 19900703
- JP 11804290 U 19901109

Abstract (en)

A gas-carburizing process wherein an article is treated by feeding a hydrocarbon gas and an oxidative gas of raw material gases directly into an atmospheric heat treating furnace, characterized in that, when the pressure within the furnace is negative, CO₂ is fed in as a negative pressure dissolving means. A gas-carburizing apparatus wherein a gas inlet for feeding a hydrocarbon gas and an oxidative gas provided in the ceiling part of an atmospheric heat treating furnace is provided with a CO₂ feeding part for dissolving the negative pressure within the furnace.

IPC 1-7
C23C 8/22

IPC 8 full level
C23C 8/22 (2006.01)

CPC (source: EP KR US)
C23C 8/20 (2013.01 - KR); **C23C 8/22** (2013.01 - EP US)

Cited by
EP1264915A3; EP2233601A1; EP1264914A3

Designated contracting state (EPC)
DE ES FR GB IT

DOCDB simple family (publication)
EP 0465226 A1 19920108; EP 0465226 B1 19980513; DE 69129390 D1 19980618; DE 69129390 T2 19990211; DE 69133356 D1 20040304;
DE 69133356 T2 20041209; EP 0825274 A2 19980225; EP 0825274 A3 19980513; EP 0825274 B1 20040128; ES 2116275 T3 19980716;
ES 2214571 T3 20040916; KR 920002817 A 19920228; KR 950001215 B1 19950214; US 5133813 A 19920728

DOCDB simple family (application)
EP 91306003 A 19910702; DE 69129390 T 19910702; DE 69133356 T 19910702; EP 97114454 A 19910702; ES 91306003 T 19910702;
ES 97114454 T 19910702; KR 910010839 A 19910628; US 69930591 A 19910412